L18 ANSWER 1 OF 1 WPIDS COPYRIGHT 1999 DERWENT INFORMATION LTD AN 1993-049714 [06] WPIDS DNC C93-022634

TI Water-soluble film with improved dimensional stability for printing coating film - consists of vinyl alcohol contg. carrageenan, water-soluble cellulose alpha-starch and/or water-soluble polysaccharide(s).

DC A14 A94

PA (NIHA-N) JAPAN HAPPY KK CYC 1

PI JP05001198 A 930108 (9306)* C08L-029-04 7 pp

ADT JP05001198 A 91JP-0`154540 910626

PRAI 91JP-0154540 910626

IC ICM C08L-029-04 ICS C08J-005-18

ICI C08L-029:04; C08L-001:00, C08L-003:00, C08L-005:00, C08L-029-04 AB JP05001198 A UPAB: 19930924

Film consists of polyvinyl alcohol contg. at least one of carrageenan, water-soluble cellulose alpha-starch and water-soluble polysaccharides in 1-40wt.% (against total polyvinyl alcohol content). The film is on one surface of printing coating film, coating film or lamination film. The PVA must possess film-forming capability.

USE/ADVANTAGE - The film shows improved dimensional stability and other mechanical properties, and can be processed by printers, coating

devices or laminaters, whereby it reveals excellent adhesion.

In an example, 2,000g of PVA with a saponification degree of 88+/-1% and 1,000g of a water-soluble polysaccharide (trade name of Prulan produced by Hayashibara Kenkyuusho) are mixed with 5000g of water, and the temp. is increased up to 100 deg.C over the 5 hr. period under stirring. The resultant paste-like mixt. is fed through a pump and is allowed to drop over the surface of a cylindrical drum heated at 90 deg. which is rotated at one revolution per 50 secs., followed by rolling of the dried water-soluble film. The film is overlaid on one surface with an oil-borne paint by means of a sponge roller to a thickness of 2.5 microns, followed by drying with hot air and IR rays, wherein the water-soluble film does not undergo weaving during paint application and the overlaid coating film does not show cracking, retaining excellent gloss.

L45 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 1999 ACS

AN 1993:256361 HCAPLUS

DN 118:256361

TI Water-soluble poly(vinyl alcohol) films

IN Inoe, Tomio

Japan Happy Kk, Japan Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

.A Japanese

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

A2 19930108 91JP-0154540 19910626 <--PI JP05001198 AB Tilte films comprise poly(vinyl alc.) and 1-40% .gtoreq.1 water-sol. compd. from carrageenan, cellulose, .alpha.-starch, and polysaccharides and the films are printable with application of oil-based inks followed by water-based inks, coatable with application of oil-based coatings followed by water-based coatings, and can be laminated to wallpaper or wall cloth. Thus, a syrup contg. EVA with sapon. degree 88 .+-. 1%, pullulan, and H2O was dropped on a rotating drum to form a water-sol. film, which was pasted to the moistened surface of a wood furniture and dried by an IR lamp. The

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film adhered strongly and its color and gloss showed no change after 1 mo.

ICM C08L-029/04 ICS C08J-005/18

ICI C08L-029/04, C08L-001/00, C08L-003/00, C08L-005/00; C08L-029/04

CC 38-3 (Plastics Fabrication and Uses)

ST water sol polyvinyl alc film; carrageenan polyvinyl alc film; cellulose polyvinyl alc film; starch polyvinyl alc film; polysaccharide polyvinyl alc film; coatability polyvinyl alc film; printability polyvinyl alc film; lamination polyvinyl alc film wallpaper

Textiles

(for walls, laminates with water-sol. poly(vinyl alc.) films)

Lamination

(of water-sol. poly(vinyl alc.) films with wallpaper and wall cloth)

IT Polysaccharides, uses

RL: USES (Uses)

(poly(viny) alc.) films contg., water-sol., printable, coatable, laminatable to wallpaper)

IT Paper

(wall-, laminates with water-sol. poly(vinyl alc.) films)

24937-78-8DP, Ethylene-vinyl acetate copolymer, sapond.

RL: PREP (Preparation)

(films, contg. polysaccharides, water-sol., prepn. of, printable,

coatable, laminatable to wallpaper)

IT 9000-07-1, Carrageenan 9004-67-5, Methylcellulose 9005-25-8, Starch, uses

RL: USES (Uses)

(poly(vinyl alc.) films contg., water-sol., printable, coatable, laminatable to wallpaper)

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